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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,915	04/21/2004	Daniele Fatutto	SAIC 21.081	5639

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EXAMINER

MYERS, ADAM C

ART UNIT PAPER NUMBER

1761

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/828,915

Applicant(s)

FATUTTO ET AL.

Examiner

Adam C. Myers

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 4/21/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/21/2004.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claim 1, the phrase "i.e." renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claims 1 and 8, the phrase "further to at least most of the solvent" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 4, the phrase "such as in particular" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith. Smith has taught a process and method for removing compounds (volatile acids) from a solution (wine). The method comprises the steps of a first stage separation of a feed stream (50) into a retentate (120) and a raw permeate (130). The separation occurs

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within a separation means having a membrane. Contained within the permeate are the compounds responsible for the volatile acidity of the wine. The method further comprises a second separation of the raw permeate stream, the separation producing a pure permeate (180) and a discharge stream (250). Located within the discharge stream are the compounds responsible for the volatile acidity. The disclosure of Smith is anticipatory of the limitations of the instant claims 1 and 8.

In regard to claim 2, the retentate stream and the pure permeate stream are combined to form a third stream that is fed into a tank holding the wine comprising the feed stream.

In regard to claim 3, Smith discloses an intermediate stage in which one or more substances are added to the raw permeate. These substances have the purpose of partial, and preferably, complete neutralization of the compounds responsible for volatile acidity.

In regard to claim 4, the substances discussed above selected from a list comprising potassium hydroxide (KOH).

In regard to claim 5, the system of Smith is held under a pressure, as this is required to operate the separation unit (80), and to facilitate movement of the fluid streams.

In regard to claims 6 and 7, Smith has disclosed that the method for removing compounds from the solution is operational as either a continuous or non-continuous process. Closing a tap (40), located on the feed stream reservoir, produces a

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continuous system. Opening the tap removes wine from the system, and the process thus operates non-continuously.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Perry. The disclosure of Smith has been presented above. In regard to the instant claim 9, Smith discloses a piece of equipment comprising an upright container, means to retain solid particulates while permitting the passage of fluid, external housing, and means for delivering fluid into and out of the process equipment. The equipment of Smith further comprises means for separating the fluid stream into a pure permeate stream and a discarding stream. The prior art teaches all the limitations of the claim, as well as additional features, those being an additional separation step and two streams exiting the process tower. Perry discloses an apparatus for the

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removal of undesired components from aqueous feedstocks. In the disclosure, a treatment tower of the type presented in the limitations of claim 9 has been taught. The equipment tower teaches the feature of the processed fluid stream exiting the tower in one stream, to be separated in a downstream separation unit. Given that all the features of the claim have been presented Smith, and that the one stage and two stage processing apparatus were known in the art, the choice of either a one stage or two-stage separation would have been obvious to one of ordinary skill in the art. Matters of simple design have been determined to be obvious to one of ordinary skill in the art, with the option to select one over the other to be the motivation of employing a feature into the currently known technology.

In regard to claims 10 and 11, the entire system of Smith is held under pressure. This issue has been addressed above, and the rejection is fully incorporated herein.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Pajunen et al. The disclosure of Smith has been presented above. The limitation of the instant claim not presented by Smith is filter means to remove solid particles from the fluid stream. Pajunen teaches an apparatus for the continuous conversion of aqueous solutions. The apparatus comprises means for processing a fluid stream, a converting/degassing stage, and means for removing solid particles from the fluid stream. Smith teaches the fluid filtration of unwanted fluid particles contained within the unprocessed fluid stream. Given that the invention of Smith is the filtration of unwanted compounds in a fluid stream, motivation has been presented for filtering means of any component found in a process stream that is unwanted in the product,

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including solid particles. Given that solid particle filters were well known and commonly used in the art, one of ordinary skill in the art would have been motivated to apply all necessary filtration means for the processing of the fluid stream taught by Smith.

### ***Allowable Subject Matter***

Claim 13 is objected to as being dependent upon a rejected base claim, but would be free of the prior art if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art teaches an apparatus comprising a first processing tower, a first separation unit, and a second processing tower. There are means for delivering fluid from the first tower to the first separation unit, and from the first separation unit to the second tower. Smith also teaches means for delivering fluid from the first separation unit back to the first processing tower. Smith does not teach or support the embodiment illustrating means from the second processing tower directly to the first separation unit, resulting to the two stage separation of the claim.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam C. Myers whose telephone number is 571-272-6466. The examiner can normally be reached on Monday-Friday, 8am-4: 30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

acm



**KEITH HENDRICKS  
PRIMARY EXAMINER**